

Page 5

RECEIVED  
CENTRAL FAX CENTER

AUG 25 2008

## REMARKS

**re Amendments to the Claims.**

The claims have been amended to substitute the term "different reading frames" for "overlapping reading frames". Both terms are used synonymously here and in numerous previous communications with the PTO. The term "different reading frames" finds support in paragraphs 0025 and 0148 of the specification.

**Berk and Sharp do not describe polypeptides encoded in overlapping reading frames.**

Claim 92 was the only independent claim in the application that was the subject of the office action of May 27, 2008. This claim reads as follows:

92. A method for analyzing a polynucleotide, comprising:
- a) providing a polynucleotide having homology to a defined DNA sequence;
  - b) calculating the masses of two or more polypeptides encoded in two or more overlapping reading frames of said defined DNA sequence thereby obtaining a set of predicted mass values;
  - c) expressing two or more polypeptides from two or more overlapping reading frames of said polynucleotide, thereby creating two or more expressed polypeptides;
  - d) measuring the masses of said two or more expressed polypeptides, thereby obtaining a set of observed mass values; and
  - e) comparing said set of predicted mass values to said set of observed mass values.

It is unequivocally clear in the specification and prosecution history of the application that "overlapping reading frames" as used in claim 92 refers to single region of a

polynucleotide that is translated in *different reading frames* to produce two or more distinct and different polypeptides.

Examiner asserts (page 6) that Berk and Sharp describe translation from overlapping reading frames. The opposite is true. Berk and Sharp state in the abstract (page 1274) that "the DNA sequences.....are translated in the same reading frame" and much of the paper is dedicated to demonstrating that this is the case. There is no evidence presented in favor of translation from overlapping reading frames, nor is there a discussion of such. This is unequivocal.

With regard to the teaching of Blanc et al., examiner reiterates *verbatim* his previous assertions without responding to, or acknowledging, applicants arguments. Applicant hereby reiterates his previous remarks re Blanc et al. made in communications dated April 23, 2008, December 27, 2007 and September 19, 2007 and includes those remarks here by reference.

Examiner continues to assert that Blanc et al teaches overlapping reading frames in spite of applicant's unanswered arguments to the contrary. For example, on page 9 of the most recent office action, examiner states "it would have been obvious to someone of ordinary skill in the art at the time of the instant invention to modify the overlapping reading frame studies of Blanc et al. and Berk et al....." This cannot be true, however, because neither Blanc et al nor Berk et al. discuss or reference overlapping reading frames.

Page 7

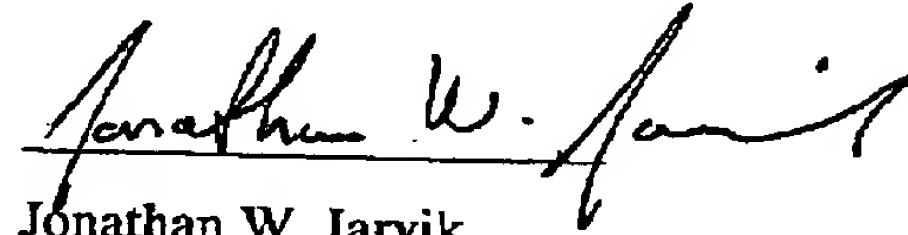
RECEIVED  
CENTRAL FAX CENTER

AUG 25 2008

**CONCLUSION**

In view of the facts and analyses presented above, applicant requests withdrawal of the rejections and allowance of claims 102-112.

Respectfully submitted,



Jonathan W. Jarvik

6419 Beacon Street

Pittsburgh, PA 15217

Telephone: (412) 488-9350

Facsimile: (412) 488-9355

Email: jarvik@cmu.edu